What is claimed is:

[Claim 1] A weapon with reduced recoil, comprising:

an elongated external tubing;
a slidable barrel disposed within a proximal section of the tubing;
an elastic member that urges the barrel along a forward direction inside the tubing;
a slidable bolt carrier disposed within a tubing distal end, and comprising a pivotal lever and a bolt carrier sear notch;
a bolt disposed within the bolt carrier, distally related to the barrel;
a hard stop limiter disposed within the tubing with at least one hard stop limiter for absorbing at least in part, kinetic energy of moving masses within the tubing;
a stiffer drive spring for urging the bolt carrier along a forward direction; and
a primer ignition and firing mechanism assembly.

[Claim 2] The weapon according to claim 1, wherein a forward momentum of the moving masses offsets at least a portion of a recoil impulse from firing, thus reducing recoil energy absorbed by a user.

[Claim 3] 3. The weapon according to claim 1, wherein a forward momentum of the moving masses offsets at least a portion of a recoil impulse from firing, thus reducing recoil energy absorbed by a weapon mount.

[Claim 4] 4. The weapon according to claim 1, wherein the elastic member comprises a spring.

[Claim 5] 5. The weapon according to claim 4, wherein the spring has a spring constant that increases a forward momentum of the moving masses to offset a portion of a recoil impulse and recoil energy.

[Claim 6] 6. The weapon according to claim 1, wherein the bolt carrier comprises a spring that urges the bolt along a forward direction within the barrel.

[Claim 7] 7. The weapon according to claim 1, wherein the weapon functions from an open bolt position, and further comprises a sear notch in the bolt carrier, to enable anti-recoil masses to accelerate over a preset distance in order to gain velocity and momentum prior to firing.

[Claim 8] 8. The weapon according to claim 1, wherein the hard stop limiter comprises at least one relatively soft elastomer barrel bushing that is disposed within the elongated external tubing for absorbing at least in part, the kinetic energy of the moving masses within the tubing.

[Claim 9] 9. The weapon according to claim 1, further comprising a muzzle brake.

[Claim 10] A primer ignition and firing mechanism for use in a weapon, comprising

a pivotal trigger with a catch shoulder;
a pivotal bolt carrier sear with a rotational spring bias for cooperating with the catch shoulder on the trigger;
a proximal lever notch cooperating with the pivotal lever mounted in the bolt carrier sear for semi-automatic operation;
the pivotal bolt carrier sear having a translational spring bias at a pivot for cooperating with the bolt carrier sear notch;
a spring biased firing pin sear mounted on the bolt carrier to hold the firing pin in a non-firing position;

a firing pin in slidable contact inside the bolt carrier, having a forward spring bias to fracture a primer; and
a firing pin sear trip cam disposed proximally to the trigger, for pushing the firing pin sear in order to release the firing pin from the non-firing position.

[Claim 11] The mechanism according to claim 10, further comprising a latch notch that includes a slanted top side, and an integrated aperture that has a depth to aperture radius ratio greater than 0.25.